

ABSTRACT OF THE DISCLOSURE

Disclosed is an apparatus for counting the rotation frequency of a numeral wheel of a meter to be used for a remote metering system. A light reflection tape is coated on one of low placed numeral wheels. A light sensor unit has an opaque case formed with first and second holes in which an infrared ray emitter and an infrared ray sensor are located, respectively. The light sensor unit is fixedly mounted on the ceiling of a rectangular shaped housing which is detachably coupled with a meter to cover the front of the meter. A portion of the housing over numeral wheels and a front plate of the meter is transparent. The transparent portion of the housing has an infrared ray rejection function to prevent infrared rays from entering into the housing. In place of employing such housing, a light shield may be used to shield a space between the light sensor unit and the light reflection tape coated numeral wheel from outer light. A microprocessor counts the rotation frequency of the light reflection tape coated numeral wheel by counting the number of output pulses from the infrared ray sensor to measure an amount of a supply, for example, gas used, A power supply portion using batteries supplies the light sensor unit and the microprocessor with necessary power. Particularly, for the minimum consumption of the battery power, an input signal for the infrared ray emitter is made in a pulse form signal of which duty ratio is under 1/100.